REMARKS

Claims 1-31 are pending in the application. Of these claims, Claims 1, 8, 15, 22, 28, 29, 30 and 31 are independent claims. Claims 28, 29, 30, 31 are new claims similar to claims 1, 8, 15, 22, but each additionally incorporates at least substantially the limitations of allowable Claim 26. Accordingly, the introduction of these new claims introduces no new subject matter. Claims 1, 2, 8-10, 15, and 21 have been amended. Paragraphs 26 and 45 of the specification have been amended to correct errors that are plainly evident from corresponding parts in the drawings.

Allowable Subject Matter

Applicant interprets the Examiner's statement at paragraph 20 of the Office Action to mean that Claim 26 is directed towards allowable subject matter. Consequently, new Claims 28, 29, 30, 31 that are similar to claims 1, 8, 15, 22, but each additionally incorporating at least substantially the limitations of Claim 26, have been introduced by way of this Amendment. An indication from the Examiner that these new claims are allowable is earnestly solicited.

Amendments to Claims 1, 8, and 15

Independent Claims 1, 8, and 15 have been amended to more precisely define the invention by including the limitation of a switch device, within a matrix of switches, that when forwarding a frame performs a forwarding decision based on a logical link to forward the frame toward less than all of the physical links of the logical link. Support for the added limitation can be found in the Applicant's Specification on at least page 6, lines 22-23 and page 15, lines 2-5.

35 U.S.C. 102(b) Rejection

Claims 1, 7, 8, 14, 15 and 21 currently stand rejected under 35 U.S.C. 102(b) as being anticipated by Abali et al. (U.S. Patent No. 6,031,835) hereinafter "Abali".

Firstly, with reference to a number of disclosed embodiments, a logical link includes external ports on different switch devices in a multistage switch to provide redundancy. In the multistage switch, each physical link is coupled to one of the plurality of external ports. The multistage switch also includes a matrix of coupled switch devices. At least two of the physical

links associated with each logical link are coupled to external ports on different switch devices. A frame received for the destination is forwarded through at least one of the switch devices to one of the physical links in the logical link. In this way, the switch device which receives the forwarded frame forwards the frame based on the logical link <u>towards less than all of the</u> <u>physical links of the logical link</u> to reduce the number of subsequent switch devices through which the frame is forwarded. (See Specification, page 2, lines 5-27.)

Applicant respectfully submits that the Examiner's rejection is traversed for the following reasons. Firstly, in order for an anticipation rejection to be proper, it is established law that the document cited as the basis for anticipation must teach each and every feature of the claim; however, in the case of the Examiner's anticipation rejection, various claim recitations that are included in the rejected claims are not disclosed in Abali. For instance, Abali, which is directed towards an apparatus and method for preventing routing deadlocks from occurring in a network, does not disclose "a multistage switch to which a logical link couples a destination, the logical link comprising a plurality of physical links" for forwarding a frame "toward less than all of the physical links of the logical link."

Referring to Fig. 1 of the Applicant's disclosure, a logical link that couples a multistage switch 100 to a destination 112 comprises a plurality of physical links 134. In contrast, referring to Fig. 4 of Abali, the service node (or destination) 118 is coupled to circuitry by only a single physical link. Therefore, Abali does not teach a multistage switch to which a logical link (plurality of physical links) couples a destination. Furthermore, since there is only a single physical link coupling the service node 118 to the other circuitry, it is not possible for Abali to forward a frame toward less than all of the physical links. Therefore, Abali does not teach the Applicant's claimed invention. Reconsideration of the anticipation rejection in relation to Claims 1, 7, 8, 14, 15 and 21, and an indication from the Examiner that these claims are allowable is respectfully requested.

35 U.S.C. 103(a) Rejection – Abali in view of Kanuri

Claims 2-6, 9-13, 16-20, 22-25 and 27 currently stand rejected under 35 U.S.C. 103(a) as being unpatentable over Abali in view of Kanuri et al. (U.S. Patent No. 6,807,179) hereinafter "Kanuri".

Kanuri provides a trunking arrangement in a network. In particular, switching logic determines an output port for each corresponding received layer 2 type data packet <u>based on a corresponding switching decision</u> for the received layer 2 type data packet, and <u>based on selection of an entry</u> in a trunk distribution table based on information within the received layer 2 type data packet. (See Kanuri, col. 2, lines 25-45; Abstract.) In this way, the network switch is able to perform trunk-based switching with minimal complexity, ensuring switching of data packets at the wire rate. (See Kanuri, Abstract.)

Referring now to Kanuri's switching rules logic, the switching rules logic obtains a port vector corresponding to a MAC address within an address table. The port vector of the corresponding address table entry specifies at least one destination switch port. The switching rules logic determines whether the destination switch port specified in the port vector is trunk enabled. If the destination switch port specified in the port vector is not trunk enabled, then the received layer 2 type data frame is switched (i.e., output) back onto the network by the destination switch port specified in the port vector. (See Kanuri, col.6, lines 5-24.) In this way, Kanuri performs look-ups of <u>existing port vectors</u> to obtain a port. However, Kanuri does not teach <u>computing</u> forward vectors using a switch device to forward data.

Therefore, Kanuri does not disclose (1) forwarding a frame based on a logical link to reduce the number of subsequent switch devices or (2) computing a forward vector, locally using the switch device, for the received data dependent on a selected trunk table entry for the received data. Instead, Kanuri is focused on switching with minimal complexity to ensure switching of data packets at a wire rate. Further, Kanuri, by applying switching logic, performs look-ups of a <u>port vector</u> instead of computing a <u>forward vector</u>.

Accordingly, Kanuri, like Abali, does NOT disclose the claimed feature of "...*the switch device which receives the forwarded frame forwarding the frame based on the logical link toward less than all of the physical links of the logical link to reduce the number of subsequent switch devices through which the frame is forwarded...*" as claimed by Applicant in Claim 1 or "...*computing a forward vector, using the switch device, for the received data dependent on a selected trunk table entry for the received data, the forward vector indicating the internal output port through which to forward the received data...*" as claimed by Applicant in Claim 22.

Thus, no combination of Kanuri and/or Abali imply, suggest or make obvious the claimed process or system as claimed in independent Claim 1 or 22.

Independent Claims 8 and 15 have similar limitations. Claims 2-6 are dependent (directly or indirectly) on independent Claim 1, Claims 9-13 are dependent (directly or indirectly) on independent Claim 8 and Claims 16-20 are dependent (directly or indirectly) on independent Claim 15, and Claims 23-25 and 27 are dependent (directly or indirectly) on independent Claim 22 and inherit these claim limitations of the respective independent claims. Therefore, Claims 2-6, 9-13, 16-20, 22-25 and 27 are believed to be in condition for allowance.

35 U.S.C. 103(a) Rejection - Abali in view of Kanuri and further in view of Brown

Claims 22-25 and 27 currently stand rejected under 35 U.S.C. 103(a) as being unpatentable over Abali in view of Kanuri and further in view of Brown (U.S. Patent No. 6,633,567) hereinafter "Brown".

Brown discloses a method and apparatus for searching a filtering database with one search operation. Brown does not explicitly address or explicitly relate to concepts such as logical links, trunk tables within the context of logical links. Furthermore, it is respectfully submitted that nothing is disclosed in Brown that would detract from the patentability of the currently pending claims, or rectify the deficiencies in applying Abali and/or Kanuri as obviousness citations. In particular, Applicant disputes the following assertion made by the Examiner at paragraph 16 of the Office Action:

> Brown teaches (fig. 1A) computing a forward vector (140b) for the received data
> dependent on a selected trunk table entry for the received data, the forward vector
> indicating the internal output port through which to forward the received data.

Also, the Examiner has not provided an explanation for why she believes that Brown teaches computing a forward vector for the received data dependent on a selected trunk table entry for the received data. (Applicant notes that nowhere in Brown is the term "trunk table" used, and while the term "trunk table" is used in Kanuri, Kanuri does not disclose trunk tables as defined in those claims of the present application within which the term is recited.)

As the assertion at paragraph 16 of the Office Action is critical to the Examiner's obviousness rejection, the rejection fails in view of the incorrectness of the Examiner's assertion. Therefore, Claims 22-25 and 27 are believed to be in condition for allowance.

Supplementary Information Disclosure Statement

A Supplementary Information Disclosure Statement (SIDS) is being filed concurrently herewith. Entry of the IDS is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that Claims 1-31 are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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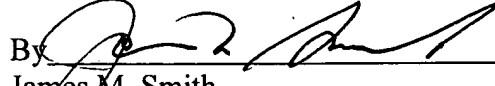
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